

# All stainless steel gas actuated thermometer

## Model S5500

According EN 13190  
 Nominal size 100 mm or 160 mm  
 With or without capillary/contacts  
 Accuracy: Class 1



### Features

- Rugged stainless steel construction
- Fast response
- Protection IP65
- High repeatability and small hysteresis
- Dry or liquid filled
- Rigid stem or bulb with capillary

### Ranges

-200 ... 50 °C up to 0 ... 800 °C  
 -330 ... 120 °F up to 50 ... 1450 °F

### Applications

Chemical and petrochemical industry  
 Machine and apparatus construction  
 Food and beverage industry  
 Pulp and paper industry

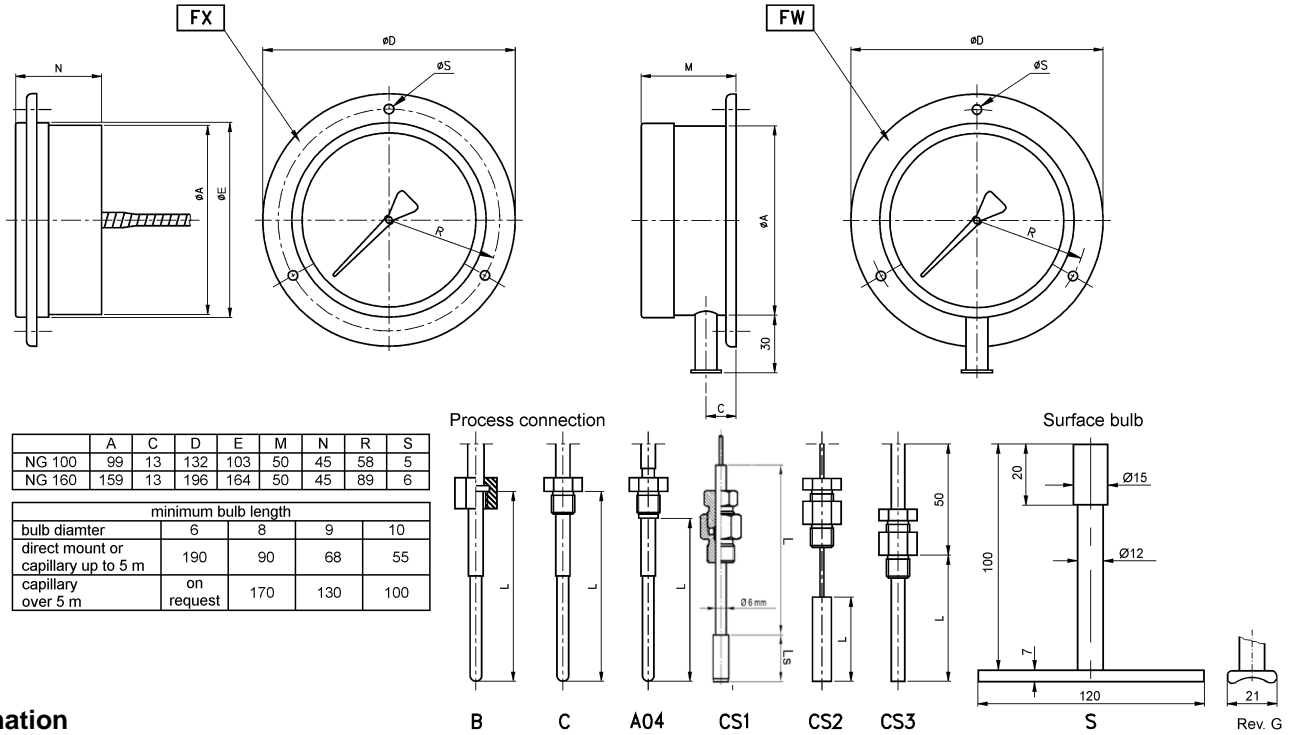


Technical specification	Rigid stem		With capillary																		
	100	160	100	160																	
Construction	Cylindrical case with bayonet ring (blow out at back is standard with ATEX)																				
Measuring principle	Inert gas actuated																				
Range in °C	0/60 0/80 0/100 0/120 0/160 0/200 0/250 0/300 0/400 0/500 0/700 0/800 -10/50 -10/110 -20/40 -20/100 -20/120 -20/180 -30/50 -30/70 -30/170 -40/40 -40/60 -40/160 -50/50 -60/40 -80/40 -100/50 -120/40 -200/50 Ranges in °F and dual scales on request																				
Overtemperature limit	Max. 130 % F.S. but max. 800 °C, optional higher overtemperature limit on request																				
Stem or bulb diameter	6 mm, 8 mm, 9 mm, 10 mm, others on request																				
Lengths	55 ... 1000 mm, other length on request, min. length depends on bulb and range																				
Capillary length	N.A.		Max. 100 m																		
Process connection	Plain G ½ B male, G ¾ B male, G 1 B male according ISO 228-1, ½ NPT male, ¾ NPT male, 1 NPT male according ANSI/ASME B1.20.1, M20x1,5 male, M24x1,5 male, M27x2 male according ISO 68-1, others on request Fixed, adjustable union or with swivel nut																				
Connection location	Back, lower, knee joint bendable (360°)																				
Material	<table border="0"> <tr> <td>Connection</td> <td>Stainless steel 304 (1.4301)</td> </tr> <tr> <td>Stem</td> <td>Stainless steel 321 (1.4541)</td> </tr> <tr> <td>Case/ring</td> <td>Stainless steel 304 (1.4301), optional 316 (1.4401)</td> </tr> <tr> <td>Capillary</td> <td rowspan="2">Stainless steel 321 (1.4541) Flexible, 304 (1.4301), or 316 (1.4401) optional PVC covered</td> </tr> <tr> <td>Armor</td> </tr> <tr> <td>Window</td> <td>Instrument glass, optional laminated safety glass (standard with ATEX) or acrylic glass</td> </tr> <tr> <td>Dial</td> <td>Aluminum, black markings on white background</td> </tr> <tr> <td>Pointer</td> <td>Aluminum, black, optional micrometer pointer or maximum pointer</td> </tr> <tr> <td>Movement</td> <td>Stainless steel 304/303 (1.4301/1.4305)</td> </tr> </table>				Connection	Stainless steel 304 (1.4301)	Stem	Stainless steel 321 (1.4541)	Case/ring	Stainless steel 304 (1.4301), optional 316 (1.4401)	Capillary	Stainless steel 321 (1.4541) Flexible, 304 (1.4301), or 316 (1.4401) optional PVC covered	Armor	Window	Instrument glass, optional laminated safety glass (standard with ATEX) or acrylic glass	Dial	Aluminum, black markings on white background	Pointer	Aluminum, black, optional micrometer pointer or maximum pointer	Movement	Stainless steel 304/303 (1.4301/1.4305)
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Movement	Stainless steel 304/303 (1.4301/1.4305)																				
Accuracy	Class 1 according to EN 13190																				
Zero adjustment	±6 % externally																				
Conformity according to RL 94/9/EC appendix X for mechanical equipment in potential hazardous areas	Optional for thermometer without electrical contacts: Marking <b>CE</b> II 2 G c or II 2 D c (Ta -30°C ... 80°C) Optional for thermometers with inductive proximity switches: Marking <b>CE</b> II 2G Ex ia IIC T4 ... T6 Gb or <b>CE</b> II 2D Ex ia IIC T135°C ... T85°C Db (Ta -25°C ... 70°C) File No. 35087702 at notified body 0044, TÜV NORD CERT																				
Protection according EN 60 529/IEC 529	IP65																				
Filling liquids	Glycerin, silicone																				
Weight dry/filled in kg	0,8/1,0 (stem length 100 mm)	1,2/3,0 (stem length 100 mm)	1,0/1,2 (stem length 100 mm, capillary 1,5 m)	1,4/3,2 (stem length 100 mm, capillary 1,5 m)																	
Accessories, options	Thermowells, dual scales, magnet spring- or inductive contacts, built in microswitch 1 or 2 SPDT, calibration certification. Thermowells must be used on all pressure or velocity applications, to protect the stem of thermometer from corrosion and physical damage, and to facilitate removal of the thermometer without disturbing the process.																				

All specifications are subject to change without notice.

G2.S5500/E Rev. M 01/2016

General dimensions in mm



Order information

Size	Bulb diameter	Length of bulb/stem	Length of capillary	Process connection	Connection size	Connection orientation	Range	Engineering units	Options
(100) 100 mm	(6) 6 mm	55 to 1000 mm	length in mm <sup>1)</sup>	(B) Turning nut	(50) G ½ B	(L) Lower	0/ 60	°C	(NH) Tagging wired
(160) >160 mm	(7) 7 mm			(C) Single nipple	(75) G ¾ B	(R) Back	0/ 100		(DA) Dial marking
	(8) 8 mm			(A04) Turning nipple	(10) G 1 B	(E2) Knee joint bendable (360°)	0/ 120		(CS) Dual scale
	(9) 9 mm			(CS1) Adjustable union connection sliding on tube <sup>1)</sup>	(50N) ½ NPT		0/ 200		(PD) Acrylic glass
	(10) 10 mm			(CS2) Adjustable union connection sliding on capillary	(75N) ¾ NPT		0/ 250		(SG) Safety glass
				(CS3) Adjustable union connection sliding on stem	(10N) 1 NPT		0/ 300	(MP) Micro pointer	
				(S) Surface bulb <sup>2)</sup>	(M20) M20x1,5		0/ 400	(A4) Capillary st. st. armored <sup>1)</sup>	
					(M24) M24x1,5		0/ 500	(A5) Capillary st. st. armored with PVC covering <sup>1)</sup>	
					(M27) M27x2		0/ 700	(FX) Front flange	
							0/ 800	(FW) Back flange	
							-10/ 50	(FH) Surface mounting bracket L = 100 mm	
							-10/ 110	(UC) U-clamp	
							-20/ 40	(EP) Maximum pointer	
							-20/ 100	(TM) 2" pipe mounting bracket	
							-20/ 120	(ATEX) ATEX approval	
							-20/ 180		
							-30/ 50		
							-30/ 70		
							-30/ 170		
							-40/ 40		
							-40/ 60		
							-40/ 160		
							-50/ 50		
							-60/ 40		
							-80/ 40		
							-100/ 50		
							-120/ 40		
							-200/ 50		
others on request	others on request	others on request	max. length: 100 m	<sup>1)</sup> length of bulb (LS) must be specified. <sup>2)</sup> only for bulb diameter (7) others on request	others on request			°F and dual scale on request	other options on request for contacts see data sheet K55

Order example

Size	Type	Bulb diameter	Length of bulb/stem	Length of capillary	Process connection	Connection size	Connection orientation	Range	Engineering unit	Options
100	S5500	8	100	1500	CS2	50N	L	0/100	C	FW

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